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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,516	01/11/2002	Kazuki Kawata	MOR-230-A	2840
7590	01/20/2004			
Andrew R. Basile YOUNG & BASILE, P.C. Suite 624 3001 West Big Beaver Road Troy, MI 48084-3107			EXAMINER KASTLER, SCOTT R	
			ART UNIT 1742	PAPER NUMBER

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	ab
	10/044,516	KAWATA ET AL.	
	Examiner	Art Unit	
	Scott Kastler	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 December 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,4-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,4-6 and 8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 11 January 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4, 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The above claims are confusing and indefinite because as amended, independent claims 1 and 5 upon which the above claims depend, require that the analysis of the gas composition be made by measuring the thermal conductivity, whereas the above claims recite oxygen or hydrogen sensors as the analysis means, thereby rendering the above claims inconsistent with the independent claims from which they depend and therefore indefinite.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwalm.

Schwalm teaches a carburizing apparatus (figures 1 and 2 for example) which could be employed to perform carburization at the recited gas pressures and compositions (it has been well settled that where the applied prior art apparatus could perform the functions recited in an apparatus claim the actual manner or method of use of an apparatus, such as recited operating temperatures

Art Unit: 1742

or gas compositions, cannot be relied upon to fairly further limit claims to the apparatus itself, see *In re Casey*, 152 USPQ 235 and MPEP 2114), including a carburizing chamber (4), a gas analysis means (6 and 8 for example, which may include measuring the oxygen or hydrogen (through measurement of H<sub>2</sub>O)content, see col. 3 lines 1-5 or the measurement of thermal conductivity (through measurement of flame temperature, see col. 3 lines 6-11) and including a display of results, and a gas composition adjustment means (14,20) for adjusting the carburizing gas content in response to the results of the gas analysis, thereby showing all aspects of the above claims.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwalm in view of Waka et al. As applied to claim 5 above, Schwalm shows all aspects of the above claims, including maintaining the carbon monoxide content to below 30% (see example 1 for example) except to specifically maintain the atmosphere at a pressure of between 13 and 4000 Pa. Waka et

al teaches, that in a carburizing process, in order to reduce sooting, it was known in the carburization art at the time the invention was made to maintain a carburizing atmosphere at 3 kPa (3000 Pa) (see col. 3 lines 1-10). Because reduction of sooting during carburization would also be recognized as desirable in the process described by Schwalm, motivation to maintain the heat treating atmosphere at a level of between 13 and 4000 Pa, as taught by Waka et al to reduce sooting, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

### ***Response to Arguments***

Applicant's arguments filed on 12-4-2003 have been fully considered but they are not persuasive. Applicant's argument that Schwalm does not teach operating the claimed apparatus at pressures between 13 and 4000 Pa, and therefore does not fairly anticipate apparatus claims 5-8 is not persuasive. As stated in the above rejection, the manner or method of use of an apparatus (including the pressures at which the apparatus should be operated at) cannot be fairly relied upon to patentably distinguish claims to the apparatus itself. Applicant's further argument that measurement of temperature (flame temperature in Schwalm) does not directly measure thermal conductivity is also not persuasive. Temperature measurements give an indication of thermal conductivity and the thermal conductivities can be calculated therefrom, (as indicated in the Stark reference, cited by the applicant in the IDS filed on 9-5-2003). Further, as instantly amended, the instant claims seem to recognize both hydrogen and oxygen sensors as measurement means for the measurement of thermal conductivity (see claims 2 and 4 for

example where the gas analysis means are stated to be either oxygen or hydrogen sensors, while independent claim 1 form which these claims depend restrict the gas analysis means to thermal conductivity measuring means).

Applicant's further argument that instant claims 1-4 are not obvious over Schwalm in view of Waka because Schwalm does not teach the step of operation of the apparatus at a pressure range of between 13 and 4000 Pa is not persuasive because Waka is cited to teach this step. As admitted by the applicant on page 6 of the arguments filed on 12-4-2003, Waka teaches operating pressures overlapping the instantly claimed range. One cannot show nonobviousness by attacking references individually (arguing that Schwalm does not teach the claimed operating pressures and that Waka does not teach the thermal conductivity measurement means) where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Conclusion***

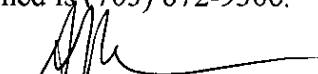
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



Scott Kastler  
Primary Examiner  
Art Unit 1742

sk